

Serial No.: 10/679,408
Amendment Dated: October 14, 2005
Reply to Office Action of July 14, 2005

Amendments to the Drawings:

The attached sheet of drawings includes changes to Figs. 8-11. These sheets, which includes Figs. 8-11, have been identified as "Prior Art.", as suggested by the Examiner in paragraph 4 of the Office Action.

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REMARKS

Description of amendments

In the specification, amendments have been made to correct informalities.

Figures 8-11 have been amended to indicate they shown prior art.

Claims 1-19 are now pending and under examination. Applicants have amended claims 3, 5, 6, 9, 12, and 15.

Priority

Based on the mistaken belief that Applicants had claimed foreign priority, the Examiner requested new declaration and application data sheet, as well as a certified copy of priority application. Applicants respectfully submit that Applicants have NOT claimed foreign priority.

Objection to the drawings

Applicants have amended Figs. 8-11 as the Examiner requested to indicate these figures show "Prior Art."

Objection to the specification

Applicants believe that the objection to the Abstract has been overcome by the newly submitted Abstract.

Applicants also believe that the objection to the disclosure has been overcome by the amendments to the disclosure.

Objection to claims 9 and 15

The objections to claims 9 and 15 have been overcome by the amendments to the claims.

Rejection under 35 U.S.C. §112, second paragraph

Claims 3, 5-7, 10-12, and 14-19 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

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Regarding the rejection of claims 16 and 17 on the ground that the limitation "said control means" lacks antecedent basis, Applicants respectfully submit that the limitation has antecedent basis in claim 15.

The remaining rejections have been overcome by the amendments to the claims.

Rejections under 35 U.S.C. §102

Claims 1-6, 10, 12-16, and 18 were rejected under 35 USC §102(b) as being anticipated by Ito et al. (U.S. Patent 6,456,896).

Ito et al. teaches that "thermal displacement data on the Z-axis ball screw" is obtained in advance for correction of thermal displacement (col. 5, line 33). On the other hand, in Applicants' claimed invention, "positioning response features" are obtained in advance. The features include stabilization time, overshoots, undershoots, etc., as recited at lines 2-11 of page 3. Further, it means likewise "features at the time of stopping" (line 12 of page 14). Accordingly, Applicants' claimed invention is distinguishable from Ito in terms of thermal displacement.

Claims 1-6, 8-10, and 12-18 are rejected under 35 USC §102(e) as being anticipated by Kakino (U.S. Patent 6,501,997).

Kakino discloses that a control device selects "suitable control parameters," according to an operating path, from the servo gain parameters K_p , K_v and K_a stored in a database during operation of a machine table. On the other hand, in Applicants' claimed invention, "positioning response features" are stored as mentioned previously and it means similarly as "features at the time of stopping" (line 12, page 4). The characteristics of Applicants' claimed invention are features A of claim 1 (A: "examining positioning response properties of said X- and Y-axis directions with respect to said Z-axis; and positioning said tool in said Z-axis direction based on obtained data of said positioning response properties.") and features B of claim 12 (B: "response property detecting means for examining positioning response properties of said X- and Y-axis directions

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with respect to said Z-axis; and positioning control means for positioning said tool in said Z-axis direction based on said obtained positioning response properties").

In view of features A and B, Applicants' claimed invention is distinguishable from Kakino which selects servo gain parameter to be used during operation of machining table. In Applicants' claimed invention, positioning response properties are selected from stored properties of time of stopping of machining table in comparison between obtained condition pattern (as the movement velocity, the movement acceleration, the movement direction, the movement start point, the movement stop point, etc.) and that of machining program. That is, Kakino relates to selection of servo gain parameter and Applicants' claimed invention relates to selection of properties of machining table.

Rejections under 35 U.S.C. §103(a)

Claims 11 and 19 were rejected under 35 USC §103(a) as being unpatentable over Ito et al. in view of Hamaya (U.S. Patent 5,189,352).

As mentioned previously, claims 1-6 and 12-16 are not disclosed nor suggested by Ito. Thus, these claims could not be obvious over Ito et al.

Claims 11 and 19 were rejected under 35 USC §103(a) as being unpatentable over Kakino in view of Hamaya.

As mentioned previously, claims 1-6 and 12-16 are not disclosed nor suggested by Kakino. Thus, these claims could not be obvious over Kakino et al.

Claim 7 was rejected under 35 USC §103(a) as being unpatentable over Ito et al. in view of Miyajima et al. (U.S. Patent 5,931,070).

As mentioned previously, claims 1-6 are not disclosed or suggested by Ito et al. Thus, claim 7 could not be obvious over Ito et al. in view of Miyajima et al.

Claim 7 was rejected under 35 USC §103(a) as being unpatentable over Kakino in view of Miyajima et al.

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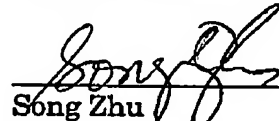
As mentioned previously, claims 1-6 are not disclosed or suggested by Kakino et al. Thus, claim 7 could not be obvious over Kakino et al. in view of Miyajima et al.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #029116.52830US).

Respectfully submitted,

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